This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for forwarding data within a redundant system having an active ~~router~~ network device and a standby ~~router~~ network device, the method comprising:

sending a first packet that forms part of a data connection, the first packet having a first send sequence number and the first packet being sent from the active ~~router~~ network device to a receiver, wherein the data connection is a type of connection that tracks the sequence of data sent between the active ~~router~~ network device and the receiver;

receiving a second packet having an associated first receive sequence number, and the second packet being received into the active ~~router~~ network device from the receiver; ~~and~~

sending a third packet that forms part of the data connection from the active network device to the receiver, wherein the third packet has a second send sequence number; and

communicating the first send sequence number and the first receive sequence number to the standby ~~router~~ network device without communicating the second send sequence number to the standby network device.

2. (currently amended) A method as recited in claim 1, further comprising:

when the standby ~~router~~ network device replaces the first active ~~router~~ network device as a second active ~~router~~ network device, sending a sequence number recovery packet from the second active ~~router~~ network device to the receiver, the sequence number recovery packet having an associated sequence number and an associated acknowledgement number, wherein the first send sequence number is used as the sequence number associated with the sequence number recovery packet and the first receive sequence number is used as the acknowledgement number associated with the sequence number recovery packet;

in response to the sequence number recovery packet, receiving a sequence recovery information packet from the receiver into the second active ~~router~~ network device, the sequence

recovery information packet having an associated sequence number and an associated acknowledgement number; and

sending a data packet from the second active ~~router~~ network device to the receiver, the data packet including the sequence number and the acknowledgement number that are associated with the sequence recovery information packet.

3. (original) A method as recited in claim 2, wherein the data connection is a Transmission Control Protocol (TCP) connection.

4. (original) A method as recited in claim 3, wherein the sequence number recovery packet and sequence recovery information packet are each an acknowledgement packet.

5. (original) A method as recited in claim 3, wherein the first packet establishes a start of the TCP connection.

6. (original) A method as recited in claim 5, wherein the first packet is a SYN packet.

7. (original) A method as recited in claim 2, wherein the second packet is in response to the first packet.

8. (original) A method as recited in claim 2, wherein the first packet is an acknowledgement packet for the second packet, the second packet being sent prior to the first packet.

9. (original) A method as recited in claim 2, wherein the connection is a TCP connection, the first packet is a SYN packet, and the second packet is a data packet.

10. (original) A method as recited in claim 2, wherein the connection is a TCP connection, and wherein both the first and second packets are data packets and not SYN or acknowledgement packets.

11. (original) A method as recited in claim 2, wherein the redundant system is a checkpointed non-stop forwarding system.

12. (currently amended) A method as recited in claim 1, further comprising:

continuing to send a plurality of subsequent send packets that forms part of the data connection, each of the packets each having an associated send sequence number and the plurality of subsequent send packets being sent between the active ~~router~~ network device to the receiver;

continuing to receive a plurality of subsequent receive packets that each have an associated receive sequence number, and the subsequent receive packets being received into the active ~~router~~ network device from the receiver in response to the subsequent send packets; and

periodically communicating some but not all of the send sequence numbers and the receive sequence numbers associated with the subsequent receive and send packets, respectively, to the standby ~~router~~ network device as replacements for the first receive and send sequence numbers, respectively.

13. (currently amended) A network system operable to forward data within a computer network, the network system comprising:

an active ~~router~~ network device configured to forward data within the computer network; and

a standby ~~router~~ network device configured to replace the active ~~router~~ network device when the active ~~router~~ network device fails,

wherein the active ~~router~~ network device is operable to:

send a first packet that forms part of a data connection, the first packet having a first send sequence number and the first packet being

sent from the active ~~router~~ network device to a receiver, wherein the data connection is a type of connection that tracks the sequence of data sent between the active ~~router~~ network device and the receiver;

receive a second packet having an associated first receive sequence number, and the second packet being received into the active ~~router~~ network device from the receiver; ~~and~~

send a third packet that forms part of the data connection from the active network device to the receiver, wherein the third packet has a second send sequence number; and

communicate the first send sequence number and the first receive sequence number to the standby ~~router~~ network device without communicating the second send sequence number to the standby network device.

14. (currently amended) A network system as recited in claim 13, wherein the active ~~router~~ network device is a separate device from the standby ~~router~~ network device.

15. (currently amended) A network system as recited in claim 13, wherein the standby ~~router~~ network device is further operable to:

send a sequence number recovery packet from the second active ~~router~~ network device to the receiver when the standby ~~router~~ network device replaces the first active ~~router~~ network device as a second active ~~router~~ network device, the sequence number recovery packet having an associated sequence number and an associated acknowledgement number, wherein the first send sequence number is used as the sequence number associated with the sequence number recovery packet and the first receive sequence number is used as the acknowledgement number associated with the sequence number recovery packet,

in response to the sequence number recovery packet, receive a sequence recovery information packet from the receiver into the second active ~~router~~ network device, the sequence recovery information packet having an associated sequence number and an associated acknowledgement number, and

send a data packet from the second active ~~router~~ network device to the receiver, the data packet including the sequence number and the acknowledgement number that are associated with the sequence recovery information packet.

16. (original) A network system as recited in claim 15, wherein the data connection is a Transmission Control Protocol (TCP) connection.

17. (original) A network system as recited in claim 16, wherein the sequence number recovery packet and sequence recovery information packet are each an acknowledgement packet.

18. (original) A network system as recited in claim 16, wherein the first packet establishes a start of the TCP connection.

19. (original) A network system as recited in claim 18, wherein the first packet is a SYN packet.

20. (original) A network system as recited in claim 15, wherein the second packet is in response to the first packet.

21. (original) A network system as recited in claim 15, wherein the first packet is an acknowledgement packet for the second packet, the second packet being sent prior to the first packet.

22. (original) A network system as recited in claim 15, wherein the connection is a TCP connection, the first packet is a SYN packet, and the second packet is a data packet.

23. (original) A network system as recited in claim 15, wherein the connection is a TCP connection, and wherein both the first and second packets are data packets and not SYN or acknowledgement packets.

24. (original) A network system as recited in claim 15, wherein the network system is a checkpointed non-stop forwarding system.

25. (currently amended) A network system as recited in claim 13, wherein the active ~~router~~ network device is further operable to:

continue to send a plurality of subsequent send packets that forms part of the data connection, each of the packets each having an associated send sequence number and the plurality of subsequent send packets being sent from the active ~~router~~ network device to the receiver;

continue to receive a plurality of subsequent receive packets that each have an associated receive sequence number, and the subsequent receive packets being received into the active ~~router~~ network device from the receiver in response to the subsequent send packets; and

periodically communicate some but not all of the send sequence numbers and the receive sequence numbers associated with the subsequent receive and send packets, respectively, to the standby ~~router~~ network device as replacements for the first receive and send sequence numbers, respectively.

26. (currently amended) A computer program product for forwarding data within a redundant system having an active ~~router~~ network device and a standby ~~router~~ network device, the computer program product comprising:

at least one computer readable medium;

computer program instructions stored within the at least one computer readable product configured to cause the redundant system to:

send a first packet that forms part of a data connection, the first packet having a first send sequence number and the first packet being sent from the active ~~router~~ network device to a receiver, wherein the data connection is a type

of connection that tracks the sequence of data sent between the active ~~router~~ network device and the receiver;

receive a second packet having an associated first receive sequence number, and the second packet being received into the active ~~router~~ network device from the receiver; ~~and~~

send a third packet that forms part of the data connection from the active network device to the receiver, wherein the third packet has a second send sequence number; and

communicate the first send sequence number and the first receive sequence number to the standby ~~router~~ network device without communicating the second send sequence number to the standby network device.

27. (currently amended) A computer program product as recited in claim 26, wherein the computer program instructions stored within the at least one computer readable product are further configured to cause the redundant system to:

when the standby ~~router~~ network device replaces the first active ~~router~~ network device as a second active ~~router~~ network device, send a sequence number recovery packet from the second active ~~router~~ network device to the receiver, the sequence number recovery packet having an associated sequence number and an associated acknowledgement number, wherein the first send sequence number is used as the sequence number associated with the sequence number recovery packet and the first receive sequence number is used as the acknowledgement number associated with the sequence number recovery packet;

in response to the sequence number recovery packet, receive a sequence recovery information packet from the receiver into the second active ~~router~~ network device, the sequence recovery information packet having an associated sequence number and an associated acknowledgement number; and

send a data packet from the second active ~~router~~ network device to the receiver, the data packet including the sequence number and the acknowledgement number that are associated with the sequence recovery information packet.

28. (original) A computer program product as recited in claim 27, wherein the data connection is a Transmission Control Protocol (TCP) connection.

29. (original) A computer program product as recited in claim 28, wherein the first packet establishes a start of the TCP connection.

30. (original) A computer program product as recited in claim 29, wherein the first packet is a SYN packet.

31. (original) A computer program product as recited in claim 27, wherein the second packet is in response to the first packet.

32. (currently amended) A computer program product as recited in claim 26, wherein the computer program instructions stored within the at least one computer readable product are further configured to cause the redundant system to:

continue to send a plurality of subsequent send packets that forms part of the data connection, each of the packets each having an associated send sequence number and the plurality of subsequent send packets being sent from the active ~~router~~ network device to the receiver;

continue to receive a plurality of subsequent receive packets that each have an associated receive sequence number, and the subsequent receive packets being received into the active ~~router~~ network device from the receiver in response to the subsequent send packets; and

periodically communicate some but not all of the send sequence numbers and the receive sequence numbers associated with the subsequent receive and send packets, respectively, to the standby ~~router~~ network device as replacements for the first receive and send sequence numbers, respectively.

33. (currently amended) An apparatus for forwarding data within a redundant system having an active ~~router~~ network device and a standby ~~router~~ network device, the apparatus comprising:

means for sending a first packet that forms part of a data connection, the first packet having a first send sequence number and the first packet being sent from the active ~~router~~ network device to a receiver, wherein the data connection is a type of connection that tracks the sequence of data sent between the active ~~router~~ network device and the receiver;

means for receiving a second packet having an associated first receive sequence number, and the second packet being received into the active ~~router~~ network device from the receiver; ~~and~~

means for sening a third packet that forms part of the data connection from the active network device to the receiver, wherein the third packet has a second send sequence number; and

means for communicating the first send sequence number and the first receive sequence number to the standby ~~router~~ network device without communicating the second send sequence number to the standby network device.

34. (currently amended) An apparatus as recited in claim 33, further comprising:

means for sending a sequence number recovery packet from the second active ~~router~~ network device to the receiver when the standby ~~router~~ network device replaces the first active ~~router~~ network device as a second active ~~router~~ network device, the sequence number recovery packet having an associated sequence number and an associated acknowledgement number, wherein the first send sequence number is used as the sequence number associated with the sequence number recovery packet and the first receive sequence number is used as the acknowledgement number associated with the sequence number recovery packet;

means for, in response to the sequence number recovery packet, receiving a sequence recovery information packet from the receiver into the second active ~~router~~ network device, the sequence recovery information packet having an associated sequence number and an associated acknowledgement number; and

means for sending a data packet from the second active ~~router~~ network device to the receiver, the data packet including the sequence number and the acknowledgement number that are associated with the sequence recovery information packet.